

Amendments to the Claim:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A microarray comprising a plurality of single stranded nucleic acid probes immobilized in discrete areas of a solid support, said probes being hybridised to a library of complexes, wherein each complex comprises an encoded molecule and a template which codes for said molecule, said template comprising a number of codons which codes for chemical entities which upon reaction form a reaction product which at least partly form part of the encoded molecule.

2. (Original) A microarray according to claim 1, wherein the chemical entities are precursors for a structural unit appearing in the encoded molecule.

3. (Previously Presented) A microarray according to claim 1, wherein the chemical entities are transferred to the nascent encoded molecule by a building block, which further comprises an anti-codon.

4. (Original) A microarray according to claim 3, wherein the information of the anti-codon is transferred in conjunction with the chemical entity to the nascent complex.

5. (Previously Presented) A microarray according to claim 1, wherein the chemical entities are reacted without enzymatic interaction.

6. (Previously Presented) A microarray according to claim 1, wherein the template comprises two or more codons.

7. (Previously Presented) A microarray according to claim 1, wherein the nucleic acid probe of the array is hybridised to a template through an adapter oligonucleotide having a sequence complementing the probe as well as the template.

8. (Currently Amended) A method for preparing a ~~microarray displaying a library of encoded molecules~~ the microarray of claim 22, wherein an oligonucleotide microarray

comprising a plurality of single stranded nucleic acid probes immobilized in discrete areas of a solid support is mixed under conditions which allows for specific hybridisation with a library of complexes, each of said complexes comprising an encoded molecule and a template which codes for said molecule, said template comprising a number of codons which codes for chemical entities which upon reaction form a reaction product which at least partly form part of the encoded molecule.

9. (Currently Amended) A method for identifying an encoded molecule having a preselected property, comprising the steps of

- i) providing the microarray according to claim ~~1~~ 22
- ii) adding a biological sample containing target molecules,
- iii) washing non-bound material off, and
- iv) detecting any bound material in each spot.

10. (Cancelled)

11. (Previously Presented) A microarray according to claim 2, wherein the chemical entities are transferred to the nascent encoded molecule by a building block, which further comprises an anti-codon.

12. (Previously Presented) A microarray according to claim 11, wherein the information of the anti-codon is transferred in conjunction with the chemical entity to the nascent complex.

13. (Previously Presented) A microarray according to claim 2, wherein the chemical entities are reacted without enzymatic interaction.

14. (Previously Presented) A microarray according to claim 2, wherein the template comprises two or more codons.

15. (Previously Presented) A microarray according to claim 2, wherein the nucleic acid probe of the array is hybridised to a template through an adapter oligonucleotide having a sequence complementing the probe as well as the template.

16. (Previously Presented) A microarray according to claim

11, wherein the chemical entities are reacted without enzymatic interaction.

17. (Previously Presented) A microarray according to claim 11, wherein the template comprises two or more codons.

18. (Previously Presented) A microarray according to claim 11, wherein the nucleic acid probe of the array is hybridised to a template through an adapter oligonucleotide having a sequence complementing the probe as well as the template.

19. (Previously Presented) A microarray according to claim 3, wherein the chemical entities are reacted without enzymatic interaction.

20. (Previously Presented) A microarray according to claim 3, wherein the template comprises two or more codons.

21. (Previously Presented) A microarray according to claim 3, wherein the nucleic acid probe of the array is hybridised to a template through an adapter oligonucleotide having a sequence complementing the probe as well as the template.

22. (New) The microarray of claim 1 wherein the codons are DNA codons, or the encoded molecules are not proteins.

23. (New) The microarray of claim 1 wherein at least one codon is a DNA codon.

24. (New) The microarray of claim 1 wherein at least one encoded molecule is not a protein.